

Amendments of th Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-10 (Canceled)

11. (Currently Amended) A driver circuit, comprising:

~~a phase generator; and~~

a charge pump, which includes a plurality of stages, each of the plurality of stages comprising a charge storage device for storing a charge and a switching device for coupling a stage to a succeeding stage or an output; and

a phase generator configured to output first control signals for controlling charging of each charge storage device and second control signals for controlling switching of each switching device;

wherein feedback signals from each of said plurality of stages are fed back to said phase generator, the feedback signals comprising first feedback signals indicating a state of each charge storage device and second feedback signals indicating a state of each switching device to affect adaptive control of said plurality of phases of said plurality of stages by indicating that corresponding edges of the plurality of phases have terminated; and

wherein said phase generator uses the feedback signals to provide adaptive control over the timing of the charging of each charge storage device and the switching of each switching device such that the phase generator outputs the second control signal to switch the switching device of a particular stage to an on state further comprises commencing a first phase only upon after the first feedback signal for the particular stage indicates termination of charging of the charge storage device of the particular stage a second phase.

12. (Currently Amended) An apparatus as recited in claim 11, wherein the phase generator is further configured to commence charging of the charge storage device of the succeeding stage - a

third phase changes only after the second feedback signal indicates that the switching device for the particular stage said second phase is in an on-state.

13-16 (Canceled)

17. (Currently Amended) A display device including a driver circuit, wherein the driver circuit comprises:

a phase generator; and

a charge pump, which includes a plurality of stages, each of the plurality of stages comprising a charge storage device for storing a charge and a switching device for coupling a particular stage to a succeeding stage or an output; and

a phase generator configured to output first control signals for controlling charging of each charge storage device and second control signals for controlling switching of each switching device;

wherein feedback signals from each of said plurality of stages are fed back to said phase generator, the feedback signals comprising first feedback signals indicating a state of each charge storage device and second feedback signals indicating a state of each switching device to affect adaptive control of said plurality of phases of said plurality of stages by indicating that corresponding edges of the plurality of phases have terminated; and

wherein said phase generator uses the feedback signals to provide adaptive control over the timing of the charging of each charge storage device and the switching of each switching device such that the phase generator outputs the second control signal to switch the switching device of a particular stage to an on state further comprises commencing a first phase only upon after the first feedback signal for the particular stage indicates termination of charging of the associated charge storage device a second phase.

18. (Currently Amended). A display device as recited in claim 17, wherein the phase generator commences charging of the charge storage device of the succeeding stage a third phase changes only after the second feedback signal indicates that the switching device for the particular stage said second phase is in an on-state.